AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions, listing of claims in the specification.

LISTING OF CLAIMS:

Claim 1 (currently amended) A bit allocation method for use with video sequences, the method comprising:

receiving a clip bit budget for at least a first clip;

determining a scene quantity for the first clip;

determining a quantity of predicted frames in a first scene in the first clip; and

calculating a bit budget for the first scene based at least in part on the scene quantity for the first clip, the first clip bit budget, a quantity of intracoded frames in the first scene, and the quantity of predicted frames in the first scene, the bit budget being calculated based at least in part by multiplying the clip bit budget by a sum of the number of predicted frames and a first constant, and dividing by a sum of the quantity of intracoded and predicted frames in the clip and the number of clip scenes multiplied by a second constant.

Claim 2 (original) The bit allocation method as defined in Claim 1, wherein each scene in the first clip begins with an intracoded frame.

Claim 3 (cancelled).

Claim 4 (original) The bit allocation method as defined in Claim 1, wherein the first scene is a GOV.

Claim 5 (original) The bit allocation method as defined in Claim 1, wherein the first scene is a GOP.

Claim 6 (original) The bit allocation method as defined in Claim 1, wherein the predicted frames are P-VOPs.

Claim 7 (original) The bit allocation method as defined in Claim 1, further comprising adjusting a quantization parameter for a first predicted frame in the first scene based on the bit budget for the first scene and current bit usage.

Claim 8 (original) The bit allocation method as defined in Claim 7, wherein the adjustment of the quantization parameter is limited to a first range.

Claim 9 (original) The bit allocation method as defined in Claim 1, further comprising adjusting a quantization parameter for a first predicted frame in the first scene upwards at least partly in response to determining that current bit usage is greater then a value related to the bit budget for the first scene.

Claim 10 (original) The bit allocation method as defined in Claim 1, further comprising adjusting a quantization parameter for a first predicted frame in the first scene downwards at least partly in response to determining that current bit usage is less then a value related to the bit budget for the first scene.

Claim 11 (original) The bit allocation method as defined in Claim 1, further comprising adjusting a quantization parameter for a macroblock based at least in part on a channel rate.

Claim 12 (currently amended) A bit allocation method for use with video clip scenes, each scene being formed by at least one frame and the at least one frame being formed by at least one macroblock, the method comprising:

determining a frame complexity for each frame of the scene, the frame complexity being a ratio of a texture bit count for the frame to an average texture bit count summed with a ratio of a motion vector bit count for the frame to the average motion vector bit count;

determining scene complexity as a sum of the frame complexity for each frame divided by a total number of frames;

calculating a bit budget for a ~~first~~ scene based on the scene complexity and capacity of a decoder buffer;

calculating a bit ~~budgets~~ budget for ~~corresponding frames~~ each frame, ~~including at least a first frame, within the first scene~~; and

calculating ~~bits budgets corresponding to macroblocks within the first frame~~ a bit budget for each macroblock.

Claim 13 (currently amended) The bit allocation method as defined in Claim 12, wherein the ~~first~~ scene is a GOP.

Claim 14 (currently amended) The bit allocation method as defined in Claim 12, wherein the ~~first~~ scene is a GOV.

Claims 15 - 17 (cancelled).

Claim 18 (currently amended) The bit allocation method as defined in Claim 12, wherein the bit budget for ~~the first~~ each frame is based on quantization parameter-invariant criteria.

Claim 19 (currently amended) The bit allocation method as defined in Claim 12, wherein the bit budget for ~~the first~~ each frame is based at least in part on how may texture bits are in the ~~first~~ frame and how many motion vector bits there are for the ~~first~~ frame.

Claim 20 (currently amended) The bit allocation method as defined in Claim 19, wherein the bit budget for ~~the first~~ each frame is further based on a mean absolute difference value corresponding to the ~~first~~ frame relative to another ~~second~~ frame.

Claim 21 (currently amended) The bit allocation method as defined in Claim 12, wherein the bit budget for the ~~first~~ frame is based at least in part on the bit budget for the ~~first~~ scene [[,]] less a quantity of bits used for already coded frames in the ~~first~~ scene [[,]] ~~a~~ and the complexity of the ~~first~~ scene ~~, and~~ less complexities of frames already coded ~~frames~~ in the ~~first~~ scene.

Claim 22 (currently amended) The bit allocation method as defined in claim 12, wherein ~~all the macroblocks within the first frame are quantized using one~~ a single quantization parameter value is used for each macroblock.

Claim 23 (currently amended) The bit allocation method as defined in Claim 12, wherein a quantization parameter ~~is varied for the first frame macroblocks~~ for each macroblock is based at least in part on current bit usage and budgeted bit usage.

Claims 24-34 (cancelled).